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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>22 June 2010</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>22-60 (1-21,33,46-48,58-59 are canceled)</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>22-32,34-45,49-57 and 60</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>20 February 2004</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The amendment filed on 06/22/2010 has been fully considered. Rejection

follows.

2.   Claims 22-60 is pending in the application. Claims 1-21, 33, 46-48, 58-59 are

cancelled.

Terminal Disclaimer

3.   The terminal disclaimer filed on 06/22/2010 has been approved and recorded

over US Pat: 6,850,510.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 22-24, 29-31, 34-37, 42-44, 49-50, 54-57, and 60 are rejected under 35

U.S.C. 103(a) as being unpatentable over Henley et al. (U.S Patent No: 5,526,353) in

view of Sharman et al (U.S Patent No. 5,774,854).

Regarding claim 22, Henley disclosed a voice communication circuit comprising:

at least one processor **(item 210 of Fig 2)** operable to packetize digitized voice

information to produce at least one voice packet **(audio data in packets over

computer network, col 5, lines 1-5);** a buffer operable to store the at least one voice

packet **(buffers, col 5, lines 14-17)**; interface circuitry operable to communicatively

couple the buffer with one of a plurality of interchangeable network interfaces **(multiple

station cards, item 122 of Fig 1, col 8, lines 28-39),** each of the plurality of

interchangeable network interfaces supporting communication of voice packets via an

associated type of communication network **(compatible with various physical layer

protocols, col 8, lines 40-54)**; the at least one processor operable to determine the

associated type of communication network supported by the one of the plurality of

interchangeable network interfaces in communication with the interface circuitry

(interface for plurality of network types, col 8, lines 55-63); and the at least one

processor operable to cause transmission of voice packets via the one of the plurality

of interchangeable network interfaces based upon the associated type of

communication network **(col 9, lines 4-17).**   Henley et al disclosed the at least one

processor operable to reduce the quantity of voice packets **(compression/

decompression methods, col 7, lines 4-26, col 15, lines 56-63),** but fail to disclosed

the feature of changing the packetization based upon a level of voice activity. However

Sharman et al disclosed a method for changing the speech encoding based on the level

of voice activity **(col 1, lines 32-48).** Therefore it would have been obvious for one of

the ordinary skill in the art at the time the invention was made to use the method of

changing the speech encoding based on the level of voice activity as taught by

Sharman in the system of Henly to include the feature to reduce the quantity of voice

packets by changing the packetization based upon a level of voice activity. One is

motivated as such in order to provide an efficient audio data packetization based on the

level of voice activity to reduce the quantity of voice pack3ets to be transmitted over the

network still maintaining service level or QoS.

Regarding claim 36, Henley disclosed voice communication circuit **(Figs 1-2)**

comprising: interface circuitry operable to communicatively couple with one of a plurality

of interchangeable network interfaces, each of the plurality of interchangeable network

interfaces operable to communicate via an associated type of communication network

to receive at least one voice packet **(multiple station cards, item 122 of Fig 1, col 8,**

lines 28-39); a buffer operable to store the at least one voice packet **(buffers, col 5,**

lines 14-17); at least one processor **(item 210 of Fig 2)** operable to depacketize the at

least one voice packet to produce digitized voice information **(disassembly, col 16,**

lines 12-22, Fig 7); the at least one processor operable to determine the associated

type of communication network supported by the one of the plurality of interchangeable

network interfaces in communication with the interface circuitry network **(interface for**

plurality of network types, col 8, lines 55-63); and the at least one processor

operable to cause the reception of the at least one packet via the one of the plurality of

interchangeable network interfaces based upon the associated type of communication

network **(col 8, lines 42-49)**. Henley disclosed the at least one processor operable to

cause conversion of the digitized voice information to produce a voice stream **(col 13,**

lines 35-58), but fails to disclose to adjust the buffering of voice packets in order to

minimize gaps in the voice stream, wherein the adjusting is based upon a propagation

delay of a communication network. However, Sharman teaches a text to speech

system operating in real using an acoustic processor and a linguistic processor. Due to

the computational time the linguistic processor requires to process data, future requests

from the acoustic processor cannot be made. Thus gaps in the speech output often

occur when the acoustic processor requests data from the linguistic processor.

Sharman proposes a solution to overcome the gaps in data by adjusting the buffer for

minimal of output data so that future requests can be supplied in a timely manner

(column 7, lines 39-48). Hence the propagation delay caused by the linguistic

processor is a factor affecting the adjustment in the buffer for desired optimal output.

Therefore, it would have been obvious to one with ordinary skill in the art at the time of

the invention was made to enable the processor to adjust the buffering of voice packets

based on the propagation delay in order to minimize gaps in the voice stream as taught

by Sharman in the system of Henley to include the feature of one processor operable to

cause conversion of the digitized voice information to produce a voice stream to adjust

the buffering of voice packets in order to minimize gaps in the voice stream, wherein the

adjusting is based upon a propagation delay of a communication network. One is

motivated as such in order to reduce the cost of the communication system while

retaining the ability to retrofit certain aspects of the existing designs.

Regarding claim 50, Henley disclosed a non-transitory computer-readable

storage having stored thereon a computer program having a plurality of code sections

for implementing a voice communication system, the voice communication system

operable to accept at any point in time one of a plurality of interchangeable network

interfaces, each of the interchangeable network interfaces for use with an associated

type of communication network **(multiple station cards, item 122 of Fig 1, col 8, lines

28-39, col 9, lines 41-50, Figs 1-2)**, the code sections executable by a computer for

causing the computer to perform the operations comprising: detecting the presence of

an interchangeable network interface **(col 8, lines 28-39);** determining the associated

type of communication network for use with the detected interchangeable network

interface; establishing a packet voice call via the associated type of communication

network **(col 8, lines 40-54)**; converting analog voice information to transmit voice

packets **(col 5, lines 5-8)**; sending the transmit voice packets via the associated type of

communication network using the interchangeable network interface **(col 8, lines 64-67,

col 9, lines 1-3, col 16, lines 30-41)**; receiving voice packets via the associated type of

communication network using the interchangeable network interface and converting the

received voice packets to analog voice information **(col 16, lines 42-49, Fig 7)**.

Henley disclosed the at least one processor operable to cause conversion of the

digitized voice information to produce a voice stream **(col 13, lines 35-58)** but fail to

explicitly teach converting the received voice packets to analog voice information

comprises: buffering voice packets for an adjustable period of time to avoid gaps in the

analog voice information. Sharman teaches a text to speech system operating in real

using an acoustic processor and a linguistic processor. Due to the computational time

the linguistic processor requires to process data, future requests from the acoustic

processor cannot be made. Thus gaps in the speech output often occur when the

acoustic processor requests data from the linguistic processor. Sharman proposes a

solution to avoid the gaps in data by adjusting the buffer for minimal of output data so

that future requests can be supplied in a timely manner **(column 7, lines 39-48)**.

Therefore, it would have been obvious to one with ordinary skill in the art at the time of

the invention was made to enable the buffering of voice packets for an adjustable period

of time based on the propagation delay to avoid gaps in the analog voice information as

taught by Sharman in the system of Henley to include the feature of converting the

received voice packets to analog voice information comprises: buffering voice packets

for an adjustable period of time to avoid gaps in the analog voice information. One is

motivated as such in order to reduce the cost of the communication system while

retaining the ability to retrofit certain aspects of the existing designs.

Regarding claims 23, 24,37, Henley et al disclose wherein the voice packets are

packetized according to an Internet protocol (IP) and wherein the Internet protocol (IP)

comprises the transmission control protocol (TCP)/Internet protocol (IP) **(column 4,**

lines 6-7, col 7, lines 19-26).

Regarding claims 29, 42, and 54, Henley et al disclosed wherein the associated type of communication network comprises a wired network **(FIG. 1, col 8, lines 40-54).**

Regarding claims 30, 43, and 55, Henley et al disclosed wherein the wired network comprises an Ethernet compatible network **(FIG. 1,140, column 8, lines 27-38).**

Regarding claims 31, 44, and 56, Henley et al disclosed wherein the wired network comprises a conventional telephone switching network **(FIG. 1, 110, 160, column 8, lines 55-63)**.

Regarding claim 34, Henley et al disclosed a converter circuitry operable to convert a voice stream into digitized voice information **(column 7, lines 19-21).**

Regarding claims 35 and 49, Henley et al disclosed wherein the voice stream comprises an analog signal **(column 7, lines 19-21)**.

Regarding claim 57, Henley et al disclosed wherein converting analog voice information to transmit voice packets comprises: reducing the volume of transmit voice packets based upon a level of voice activity **(column 5, lines 65-67, column 6, lines 1-5).**

Regarding claim 60, Henley et al disclosed adapting call setup of the voice communication system based upon the type of communication network **(column 11, lines 65-68, column 12, lines 1-5)**.

6.   Claims 32, 45 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Henley et al. (U.S Patent No: 5,526,353) and Sharman et al (U.S Patent No. 5,774,854) further in view of and Chan et al [US Pat: 5,550,861].

Regarding claims 32 and 45, Henley and Sharman fail to explicitly teach the interface circuitry is compatible with a Personal Computer Memory Card Interface Association (PCMCIA) standard. However, Chan et al disclosed a system and method for interfacing voice communication circuit compatible with PCMCIA standard.**(column 3, lines 44-67, Fig 1).** Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to use the interface circuitry compatible with a PCMCIA standard as taught by Chan et al in the system of Henley et al as modified by Sharman to include the interface circuitry to be compatible with a Personal Computer Memory Card Interface Association (PCMCIA) standard. One is motivated as such to allow a two way communication between the system and the flash memory module, or smart card. When such module is connected to the interface, it utilizes data processing capabilities such as buffering and facilitating modem communication via PCMCIA card.

7.   Claims 25-26, 38-39, 51-52 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Henley et al. (U.S Patent No: 5,526,353) and Chan et al [US Pat: 5,550,861] and Sharman et al (U.S Patent No. 5,774,854) and Heath et al (U.S Patent No. 5,231,646).

Regarding claims 25, 38, and 51, Henley, Sharman, Chan et al fail to explicitly teach the associated type of communication network is a wireless packet network. However, Heath et al teach a radio communication system operable of being employed in a small geographic area such as a long distance communication system. It is disclosed that an object of the invention is to provide a local area network using a predetermined protocol to connect nodes with wireless radio frequency (RF) links instead of hard wired links **(column 2, lines 45-48)**. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to include associated type of communication network is a wireless packet network as taught by Heath et al in the system of Henley as modified by Sharman and Chan to include the feature of associated type of communication network is a wireless packet network to perform the function of transmitting voice packets over plurality of interchangeable interfaces by the host processor based on the type of communication network. One is motivated as such to enable computers to share resources and communicate with computers in other networks over a long distance communication system over different types of communication network.

Regarding claim 26, 39, and 52, Henley, Sharman and Chan et al fail to explicitly teach the wireless packet network communicates at approximately 2.4 gigahertz. However, Heath et al disclose a preferred band 2400 MHz or 2.4 GHz for radio communication **(column 6, lines 35-41).** Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to enable the wireless packet network communicating at approximately 2.4 gigahertz as taught by Heath et al

in the system of Henley as modified by Sharman and Chan to include the feature to

associate type of communication network a wireless packet network to perform the

function of transmitting voice packets over plurality of interchangeable interfaces by the

host processor based on the type of communication network for exchange of data in

interchangeable networks. One is motivated as such to achieve greater signal

penetration through office walls and to reduce interference between neighboring

networks, and to resolve the problem of multipath interference with wireless network.

8.   Claims 27-28, 40-41, 53 are rejected on the ground of nonstatutory obviousness-

type double patenting as being unpatentable over Henley et al. (U.S Patent No:

5,526,353) and Heath et al (U.S Patent No. 5,231,646) and Sharman (U.S Patent No.

5,774,854) and Chan et al [US Pat: 5,550,861] and Avery et al (US Pat: 5,287,384).

Regarding claims 27, 40 53, Henley and Sharman fail to disclose the wireless

packet network communication. Heath et al disclosed that the interface wireless packet

network that communicates at 2.4 GHz **(column 6, lines 35-41).** Chan et al disclosed a

wireless data communication network circuitry **(item 36 and 38 of Fig 2)** for performing

the pager functions via the PCMCIA card **(col 2, lines 58-62, Figs 1-2)**. However

Henley et al, Heath et al and Chan et al fail to teach the wireless packet network

communicates using a frequency hopping spread spectrum technique. Avery et al teach

a wireless data communication network employing frequency hopping spread spectrum

transmission technique (abstract). Therefore it would have been obvious to one with

ordinary skill in the art at the time of the invention was made to allow the wireless

packet network communicate using a frequency hopping spectrum technique as taught

by Avery et al in the system of Henley et al as modified by, Sharman, Chan and Heath

to include a frequency hopping spread spectrum technique the function of transmitting

voice packets over the wireless networks to transmit the packets over plurality of

interchangeable interfaces by the host processor based on the type of communication

network. One is motivated as such to build a robust network that is resistant to

interferences from other adjacent radio frequency networks.

Regarding claims 28, 41, Heath et al disclosed that the interface wireless packet

network that communicates at 2.4 GHz **(column 6, lines 35-41)** and Chan et al

disclosed a wireless data communication network circuitry **(item 36 and 38 of Fig 2)** for

performing the pager functions via the PCMCIA card **(col 2, lines 58-62, Figs 1-2).**

However Henley et al, Heath et al, Sharman and Chan et al fail to teach the wireless

packet network communicates using a direct sequence spread spectrum technique.

Avery et al disclose the direct sequence spread spectrum (DSSS) technique was

implemented by manufacturers when spread spectrum technology was first allowed by

the Federal Communications Commission **(column 2, lines 59-62).** Therefore, it would

have been obvious to one with ordinary skill in the art at the time of the invention was

made to allow the wireless packet network communicate using a direct sequence

spectrum technique as taught by Avery et al in the system of Henley et al, as modified

by Sharman, Heath and Chan to perform the function of transmitting voice packets over

plurality of interchangeable interfaces by the host processor based on the type of

communication network using DSSS over the wireless networks. One is motivated as

such in order to reduce the cost of the communication system while retaining the ability

to retrofit certain aspects of the existing designs.

Response to Arguments

9.   Applicant's argument, see remarks, filed on 06/22/2010 with respect to rejection

of claims 22-60 have been fully considered. The amendment overcomes the rejection of

claims 50-57, 60 under 35 USC 101 and filing of the TD overcomes the non-statutory

obviousness type double patenting over US Pat: 6,850,510. However the amendments

fail to overcome Henley et al. (U.S Patent No: 5,526,353) and Heath et al (U.S Patent

No. 5,231,646) and Sharman (U.S Patent No. 5,774,854) and Chan et al [US Pat:

5,550,861] and Avery et al (US Pat: 5,287,384) references, which were used in the

previous office action.

In response to applicant's argument that the references fail to show certain

features of applicant's invention, it is noted that the features upon which applicant relies

(i.e.,some of the call set up features disclosed in the Specification pp 281-320 to figs 55-

2 as) are not recited in the rejected claim(s). Although the claims are interpreted in

light of the specification, limitations from the specification are not read into the claims.

Therefore the examiner respectfully suggests applicants to include some of these

features in the claims to overcome prior art rejections.

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

10.   Any inquiry concerning this communication or earlier communications should be

directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616.

The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If

attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached @ (571)-272-3795. Any inquiry of a general

nature or relating to the status of this application or proceeding should be directed to the

group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

11.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197(toll-free).

/Venkatesh Haliyur/

Examiner, Art Unit 2476

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2476